Section C.

Mr. A. S. Reid, representing Section C, stated that Mr. Osmund Jeffs had consented to retain the post of secretary to the Geological Photographs Committee for another year, as Mr. W. W. Watts had agreed to act as co-secretary during that time, and afterwards to become sole secretary. The Erratic Blocks Committee had altered its title so as to include Scotland.

Mr. Murdoch hoped that the Earth Tremors Committee might include Scotland in its sphere of action. It was then a purely English Committee.

Mr. M. B. Slater thought that an exchange of local geological photographs among the various Corresponding Societies would be a good thing. Some discussion then took place on the practical difficulties likely to arise from an interchange, such as the burden likely to be laid upon the shoulders of the amateur photographer, &c. Mr. Hopkinson thought that copies should be obtainable at the Jermyn-street Museum at a small fixed charge, and Mr. Reid mentioned a plan suggested by Mr. Gray of Belfast. At that town a photographer had been appointed who received the negatives taken by various members of the local societies, and furnished as many copies as were required at a small fixed charge.

Section E.

Mr. Sowerbutts said that the Committee of Section E had asked the Council of the British Association to permit them to have a Committee for the purpose of making an inquiry into the condition of the teaching of geography in Great Britain in all schools, especially secondary schools, and to report next year. It was probable that the Corresponding Societies might be asked to furnish certain information, and he hoped their secretaries would reply as promptly as possible.

The Rev. J. O. Bevan thought that the statements made in the report of the Conference of Delegates at Nottingham, that in some county, unnamed, "children attending schools were not taught geography in any way," and that geography was absolutely ignored in secondary schools, were decidedly erroneous, though in some primary schools it was not taught except in connection with reading. The Royal Geographical Society had instituted examinations in geography in secondary schools, and gave gold medals and other prizes.

Section H.

Mr. Hartland said that he was there owing to the very sad bereavement sustained recently by Mr. Brabrook, the Chairman of the Ethnographical Survey Committee, who was consequently unable to attend. The Ethnographical Survey was a matter in which the Corresponding Societies were especially capable of rendering valuable assistance. They had hitherto, however, met with but little response from the local societies. The work had so many branches that some of them could scarcely fail to interest their more active members. If the Committee obtained the grant for which they asked, they proposed to begin work in Galway, and he hoped to report progress at the next meeting. He would be glad if meanwhile the Corresponding Societies would circulate their schedules, and bring the Survey under the notice of their members.

Mr. M. B. Slater mentioned the work done in the neighbourhood of Malton by a sub-committee, of which Dr. Colby was chairman; and Mr. Hartland remarked that the Malton Naturalists' Society was one of those which had responded to their circular.

The Chairman noted the great variety of the work of the Ethnographical Survey, which included questions of physical characteristics, folk-lore, linguistic differences, place-names, traditions, &c. Satisfactory work had been done around Ipswich.

Mr. Hartland wished also to mention the preservation of ancient monuments. He had just received a letter from the Secretary of a local committee in Pembrokeshire, mentioning the recent discovery there of some ancient stones and some pit dwellings.

Mr. Hopkinson thought that the measurements asked for were very elaborate, and the questions were considered inquisitorial. He was sure that a simpler system would be found to answer better in practice, as then more societies or persons would be found willing to undertake the work.

Mr. Hartland hoped that members who objected to the elaborate measurements would take up the subjects of dialect, folk-lore, or prehistoric monuments. Though they hoped to be able to obtain the elaborate measurements in some cases, they were glad to get such measurements as could be procured. They did not consider their standard as of universal obligation.

The Chairman wished to say a few words about another Committee, that concerned with the measurement of school children. Many schools had been doing good work in this way, but unfortunately there had been no uniform system, so that the results obtained at one school could not be compared with those at another. The Committee had drawn up a system which he hoped would prove acceptable to the various schools.

Dr. Brett (Hertfordshire) said that since the York meeting of the British Association, fifteen years ago, it had been his custom as a medical man to record the height, weight, colour of hair and eyes, &c., of children. He had up to that time made about three thousand observations, but had not yet been able to put his records into shape.

The Rev. J. O. Bevan spoke of the desirability of expediting the archæological survey of the kingdom, which had been begun a few years ago. He was then at work at the map of Herefordshire, which was nearly ready for publication. He was surprised that the work had not been taken up more energetically by properly qualified persons in the different districts.

THE AFFILIATED SOCIETIES OF THE AMERICAN ASSOCIATION.

A FEATURE of the meetings of the American Association for the Advancement of Science is the number of affiliated societies which meet at nearly the same time and place, though having no organic connection with it. One disadvantage of this is that the Sections of the Association do not get many of the important papers read before the affiliated societies; in fact, these societies seem almost to take the place of the Sections, and they certainly tend to put the Association in a secondary position. As a large number of the papers were more of local than of general interest, we confine ourselves to a brief statement of the societies which met at Springfield during the recent meeting of the American Association, and of a few of the subjects considered.

The Society for the Promotion of Agricultural Science discussed several papers on spraying as a prevention of the attacks of various insect pests and fungi, and also on cereal culture in the United States. At the end of the proceedings, Mr. R. Lazenby was elected President of the Society.

The attention of the Association of Economic Entomologists was largely directed to the results of experimenting with insecticides, and the methods of placing the knowledge before all agriculturists. A resolution was passed asking the Massachusetts authorities to support the work of the Gipsy Moth Commission. Another resolution was adopted asking that the publication of "Insect Life" by the Department of Agriculture be resumed. The officers for the ensuing year are: President, Prof. C. H. Fernald; first vice-president, Prof. F. M. Webster; second, Prof. Herbert O. Ames; secretary, C. L. Marlatt.

The session of the American Forestry Association was a very successful one. In the course of a short communication, Baron Herman pointed out that Germany has comparatively the most forests in well-regulated administration of all the countries of the world; that is, one-fourth of its whole area is covered with them (all under long and careful management). There is scarcely one tree in the whole of the fatherland which is not known personally to a forest officer, and which has not been sown or planted with more or less great care and labour. The whole area of wooded land is almost equally divided between State, community, and private persons. And it is thought that this is a very good state of affairs, the commonwealth being in that way well interested in its parts as well as in the whole, in the affairs connected with the forest growth. This of course influences legislation, and although laws concerning the forests are not passed in the Reichstag, but in the Parliaments of the individual States, there is scarcely a part of Germany where one is allowed to cut down a forest, and not plant it again, without the permission of the Department of Forestry. The forests are managed by hundreds of forest officers, and these are educated at special colleges for forestry, there being no less than eleven in Germany. The theoretical study at these colleges lasts generally four years, not counting the time a young man has to spend in learning practical work in the woods. This comparatively long time a man wants, for his training shows how very much the science of forestry has been developed in

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its different branches in Germany. After a man has passed his examinations he may often have to wait for years and years before he gets an appointment; but the love of the woods, the poetry which time has woven around the solitary *forsthaus* amidst the trees and animals of the woods is so great they do not mind waiting a long time. In conclusion, Baron Herman said he was in America to see what trees could be transplanted with success to Germany.

After a paper on the present condition of the forests of America, the following resolutions were adopted, among others:—

"That the American Forestry Association join with the New York Chamber of Commerce and Board of Trade in hearty advocacy of the establishment of a forestry commission of three members to make a thorough investigation of the public forest lands, and to make recommendations concerning their disposition and treatment, and the executive committee is hereby directed to represent the Association in support of such legislation."

"That the American Forestry Association recognising that a practical advance in rational forestry methods requires the services of men trained in forestry practice, endorse the legislation proposed in the last congress, and expresses the hope that the same will be enacted during the coming congress."

"That the knowledge and extent and conditions of our forest resources is a necessary basis for intelligent forest legislation, and that therefore the American Forestry Association recommends the co-operation of various government departments as far as practicable in ascertaining their areas and conditions, and especially recommends that both a topographical and forestal survey of the national forest reservations be instituted."

Sixteen papers were read before the American Mathematical Society, and two topics were discussed, viz. (1) a general subject catalogue or index of mathematical literature, and (2) the mathematical curricula of colleges and science schools. With reference to the former subject, it was resolved that the Council of the Society consider the desirability of offering their co-operation to the Mathematical Society of France in the work of classifying and indexing mathematical literature.

The American Chemical Society was presided over by Prof. E. F. Smith; and among the subjects of papers read before it were: an electrical process for the production of white lead; the heating effects of coal; speed of oxidation of chloric acid; reaction between copper and concentrated sulphuric acid; use of aluminium for condensers in the distillation of alcohol, ether, chloroform, benzine and similar liquids. Prof. Norton, who read the last-named paper, stated that the equipment of the chemical laboratory of the University of Cincinnati includes aluminium supports, rings, clamps, burners, water-baths, air-baths, hot water funnels, &c., in all of which connections the lightness, conductivity, and freedom from rust render the metal superior to iron or bronze.

The Botanical Society of America, which was organised in Brooklyn last year, held its first annual meeting on August 27 and 28. Mr. William Trelease presided. The officers elected for the ensuing year are: President, C. E. Bessey; vice-president, W. P. Wilson; secretary, Charles R. Bainer; treasurer, Arthur Hollick.

Prof. G. F. Swain opened the proceedings of the Society for the Promotion of Engineering Education with an address on the relation between mental training and practical work in engineering education. The papers read before the Society, and the discussions to which they gave rise, will do much to indicate what should be the scope of engineering and technical schools, and the places of different subjects in an engineering education. The units of force best adapted for use in the teaching of mathematics formed the subject of a discussion between the physicists and engineers. At the end of the meeting, Mr. Mansfield Merriman was elected President.

ON RECENTLY DISCOVERED REMAINS OF THE ABORIGINAL INHABITANTS OF JAMAICA.[1]

THE circumstances under which the human remains now exhibited to the meeting were discovered, are narrated in a communication by Mr. F. Cundall, Secretary to the Jamaica Institute, published in the *Journal* of the Institute for April 1895, and also in a letter by Mr J. E. Duerden, Curator of the Museum, in NATURE of June 20. From the former I extract the following description of the discovery:—"On the 10th April, a labourer, whilst cutting stakes on the Halberstadt Estate (a wild, rocky part of the Port Royal Mountains, about 2000 feet above the sea-level, and two miles from the shore) on the estate of Mr. B. S. Gossett, a quarter of a mile east of the Kalorama Mission Station, discovered on the hillside a human bone. This led the Rev. W. W. Rumsey to make a search on the following day, when he discovered a small aperture 25 inches wide, and less than 2 feet high, in the face of the limestone rock, and blocked by boulders; on removing these, and passing through which, he discovered a cavern with water-worn sides, partially covered with stalactite deposits, penetrating into the rock for a distance of about 20 feet, about 5 feet across at its widest part, and not more than 2 or 3 feet high. The floor was covered with a deposit about 12 inches thick, of a fine light yellowish dust, but the remains were superficial."

In addition to the human bones, to be presently described, were found a considerable portion of a cedar-wood canoe, about 7 feet long, fragments of pottery, including two, nearly perfect, earthenware vessels similar to those known to have been made by the Arawak Indians, an outer portion of the trunk of an *arbor-vitæ*, probably serving at one time as a "mortar," scarcely showing any sign of decay; the perfect skulls and other parts of the skeleton of a rodent (the so-called Jamaica coney, *Capromys brachyurus*); two large marine shells (*Fusus* and *Murex*), the soft parts of which are still eaten by the natives, numerous land shells (*Helix*, &c.). A flint implement is also mentioned in Mr. Duerden's account.

The only portion of the contents of the cavern submitted to me for examination consist of the human bones, and as they only arrived in London a few days before I was leaving town, at present I have only been able to make a general examination of them, without any detailed measurements.

Their principal interest consists in the circumstance, proved both by the conditions under which they were found, and by their own characteristics, that they are the remains of the race which inhabited the island previous to its discovery by the Spaniards, by whom they were in so short a time barbarously and utterly exterminated.

Whatever condition the bones were found in as they lay in the cave, they are now completely mixed up, and it is impossible to put together anything like complete skeletons, or even, except in very few cases, to associate the bones of individuals; and the number of odd bones and fragments show that large portions of the individuals who were buried or died in the cave are now missing. Their general condition of preservation, colour, &c., is nearly the same in all, so there is no reason to suppose that they were not contemporaneous. None of the bones show any wounds or marks of violence, but all appear to be those of persons who have died a natural or slow death. Both sexes and almost all ages are represented, from children of four or five years to very old persons, the proportion of the latter, as will be seen, being remarkable.

Of the crania, there are six complete, all those of fully adult or aged persons, and two calvariæ (without the facial portion), both of children. There are also fragments of six others, giving evidence of fourteen individuals.

Of the adult skulls three appear to be masculine and three feminine in type.

Five of these show evidence of artificial depression of the frontal region in various degrees. In two it is very marked; in the others less so. In the sixth, though the frontal region is low, no effects of artificial deformation are evident. Both the children's skulls are very broad and flat, but whether naturally so, or whether this character has been exaggerated artificially it is difficult to say. The mode of depression, when it occurs, is similar in all, evidently produced by the flat board upon the forehead—the commonest custom throughout so large a portion of the ancient inhabitants of the American continent.

Although there is a considerable general resemblance between these skulls, they present strong individual characters; but their whole aspect, taken together, is characteristic of the American type. The retreating forehead, well marked supraciliary ridges, round broad arch of the palate, round high orbits, narrow nasal aperture, and especially the narrow prominent nasal bones, causing a high bridge to the nose during life, are very characteristic. There are, however, two rather remarkable exceptions to this form of nose, in which the breadth of the aperture and flatness of the

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[1] Read before Section H of the British Association at Ipswich, September 12, by Sir William H. Flower, K.C.B., F.R.S.

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